

and confining this flow from the vicinity of the feed position to at least the vicinity of the distribution shield, and wherein the conduit is arranged to cause the flow of objects to pass through an opening in the distribution shield.

Clearly, there is no disclosure in Hough et al. of a shield or other structure for distributing a plurality of objects away from an object disengaging position. Instead, the electroplating method and apparatus of Hough et al. is structured to electroplate a single cylindrical object, such as the bearing shells 24 (Fig. 2) and 24' (Fig. 5), while this object is held in a fixed position. Thus, the apparatus in Hough et al. is intended to be used to electroplate a fixed object within the apparatus and is not designed to convey or circulate loose objects within a fluid flow and in fact cannot operate in this fashion.

Although the apparatus of Wurster et al. is structured to coat a plurality of discrete particles, this reference does not disclose or suggest a distribution shield arranged to cooperate with an inclined bottom wall of a fluid vessel such that objects disengaged from an upwardly flowing fluid stream fall on the upper surface of the shield and move downward thereon away from the disengaging position to a return position arranged above an upper portion of an inclined bottom wall to deposit the disengaged objects onto this bottom wall portion. Furthermore, there is also no suggestion in this reference of arranging a conduit for confining the upward flow of the objects so as to cause this flow to pass through an opening in such a distribution shield.

Thus, there are significant differences between the present invention and that of Wurster et al. In the present invention, the distribution shield is situated above a moving packed bed of objects and acts to transport loose objects from the disengaging region of the spout to an edge region of the moving packed bed. Additionally, the draft conduit and the distribution shield of the invention are used together as two cooperating elements. The apparatus of Wurster et al. cannot operate in this manner.

The additional prior art references made of record as being "pertinent to applicant's disclosure" have been reviewed and are believed to be readily distinguishable from the claimed invention for reasons similar to those presented above

with respect to the applied references. These additional references have not been addressed more specifically because they were not relied upon and applied against the claims.

Claims 1-30 were rejected under 35 U.S.C. § 112, ¶ 2, as being indefinite in that some of "the structure is defined in terms of the materials contained within the structure." Accordingly, independent claims 1 and 23 have been amended to define directly the structural elements of the apparatus that Applicant regards as the invention and to refer to the workpieces and fluids "as having an impositive relationship to the apparatus elements". Accordingly, it is believed that these amendments have obviated the § 112 rejection.

The Action indicated, in sections 7 and 8, that claims 3-30 contained allowable subject matter. The features of claim 4 have been combined with those of prior claim 1 in a new independent claim 31, and the features of claim 18 have been combined with those of prior claim 1 in a new independent claim 32. These claims have also been written to overcome the § 112 rejection, and therefore are believed to be allowable in accordance with sections 7 and 8 of the Action.

The title of the application has been amended for conformity with the terminology of the claims.

In conclusion, the present invention provides a novel and unobvious apparatus for contacting objects with a fluid wherein a distribution shield mounted in a fluid vessel has an upper surface inclined downwardly and extending away from the vicinity of a disengaging position to a return position such that objects disengaged from an upwardly flowing fluid stream fall on the upper surface of the distribution shield and move downwardly thereon away from the disengaging position to the return position, wherein the return position is arranged above an upper portion of an inclined bottom wall of the vessel to deposit the disengaged objects onto the upper portion of the bottom wall, wherein the bottom wall is arranged to cause a bed of the deposited objects to move downward along the bottom wall from the upper portion toward a feed position

adjacent to a fluid inlet, and wherein a conduit is arranged above the fluid inlet for receiving an upward flow of the objects and confining this flow from the vicinity of the feed position to at least the vicinity of the distribution shield, and wherein the conduit is arranged to cause the flow of objects to pass through an opening in the distribution shield. Additional novel and unobvious features of the invention are described in the independent and dependent claims of the application. Neither these features nor their corresponding functions are taught or suggested in any way by the cited references, whether considered alone or in proper combination.

In view of the foregoing amendments and Remarks, it is believed that the invention defined by each of the claims now in the application is novel and unobvious, and that these claims are patentable under 35 U.S.C. §§ 102, 103, and 112. Accordingly, reexamination of the application and allowance of the claims as now presented are earnestly requested.

DEPOSIT ACCOUNT AUTHORIZATION

It is not believed that extensions of time or fees for net addition of claims are required, beyond those which may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary, then such extensions of time are hereby petitioned under 37 CFR § 1.136(a), and any fees required for consideration of this paper, including fees for net addition of claims, are hereby authorized to be charged to our Deposit Account No. 22-0185.

Respectfully submitted,



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